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AUTHOR Battafarano, Annette M.
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ABSTRACT

Nutrition is well-recognized as a necessary component of educational programs for physicians. This is to be valued in that of all factors affecting health in the United States, none is more important than nutrition. This can be argued from various perspectives, including health promotion, disease prevention, and therapeutic management. In all cases, serious consideration of nutrition related issues in the practice is seen to be one means to achieve cost-effective medical care. These modules were developed to provide more practical knowledge for health care providers, and in particular primary care physicians. The modules were written by dieticians and nutritionists working closely with physicians. The modules were field tested and reviewed by basic and clinical science faculty in a number and variety of educational programs. The introduction to each module explains the importance of the particular topic, and the learning goals and objectives clarify what can be achieved through the study of the material. Self-checks are presented and in all cases, achievement with regard to goals can be evaluated. On the average, 45 minutes are required to complete each module. Each module includes references for the physician and for the physician to give to the patient. Also included are a number of supporting appendices. This document is the faculty guide and comprehensive index to all 26 volumes. A description of the complete series and suggestions for their use are included. (CW)

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The Nutrition in Primary Care Series Contains These Modules:

1. Nutrient Content of Foods, Nutritional Supplements, and Food Fallacies
2. Appraisal of Nutritional Status
3. Nutrient and Drug Interactions
4. Normal Diet: Age of Dependency
5. Normal Diet: Age of Parental Control
6. Normal Diet: Adolescence
7. Normal Diet: Pregnancy and Lactation
8. Normal Diet: Geriatrics
9. Dietary Management in Obesity
10. Dietary Management in Diabetes Mellitus
11. Dietary Management in Hypertension
12. Dietary Management in Hyperlipidemia
13. Dietary Management in Gastrointestinal Diseases
14. Dietary Management for Alcoholic Patients
15. Nutritional Care of Deteriorating Patients
16. An Office Strategy for Nutrition-Related Patient Education and Compliance

The Nutrition in Health Promotion Series Contains These Modules:

17. **Individual and Social Factors**
18. **Metabolic Principles**
19. **Risk Factors and Disease Prevention**
20. **Decoding Fad Diets**
21. **Protecting Bone and Teeth**
22. **Exercise and Physical Activity**
23. **Vitamins and Trace Minerals**
24. **Behavioral and Neurological Disorders**
25. **Preventing Hospital and Home Malnutrition**
26. **Questions About Common Ailments**

Faculty Guide (includes comprehensive index for Modules 1-26)

Department of Family Medicine
College of Medicine - The Ohio State University
456 Clinic Drive - Columbus, Ohio 43210

Comprehensive Guide and Topical Index

Annette M. Battafarano, M.A.
Graduate Research Associate
Department of Family Medicine
The Ohio State University
Columbus, Ohio

Project Editor
Lawrence L. Gabel, Ph.D.

Nutrition Content Editor
Charlette R. Gallagher-Allred, Ph.D., R.D.

Family Medicine Content Editor
Patrick J. Fahey, M.D.

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Project Officer: Margaret A. Wilson, Ph.D.

Acknowledgments

Project Staff

Lawrence L. Gabel, Ph.D.-Project Director, Associate Professor and Director, Graduate Education and Research Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Joan S. Rehner-Project Assistant, Secretary, Graduate Education and Research Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Patrick J. Fahey, M.D.-Family Medicine Coordinator, Assistant Professor and Director, Predoctoral Education Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Charlette R. Gallagher-Allred, Ph.D., R.D.-Nutrition Coordinator, Nutritionist, Riverside Methodist Hospital, Columbus, Ohio

John S. Monk, Ph.D.-Evaluation Coordinator, Assistant Professor and Coordinator, Research and Evaluation, Graduate Education and Research Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Independent Study Package Consultant

Tennyson Williams, M.D., Professor and Chairman, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Nutrition Consultant

Jil Feldhausen, M.S., R.D., Nutritionist, Department of Family & Community Medicine, University of Arizona, Tucson, Arizona

Editorial Consultant

Chester E. Ball, M.A., Assistant Professor Emeritus, The Ohio State University

Technical Assistants

Annette M. Battafarano, M.A., Graduate Research Associate, Graduate Education and Research Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Richard E. Doty, M.S., Graduate Research Associate, Graduate Education and Research Section, Department of Family Medicine, The Ohio State University, Columbus, Ohio

Criteria/Assessment Committee

Mark T. Winders, M.D., Resident, Department of Family Medicine, The Ohio State University, Columbus, Ohio

David R. Rudy, M.D., Director, Monsour Family Practice Residency Program, Monsour Medical Center, Jeannette, Pennsylvania.

Maria Steinbaugh, Ph.D., Associate Director, Nutrition Services, Ross Laboratories, Inc., Columbus, Ohio

Wilburn H. Weddington, M.D., Family Physician, Columbus, Ohio

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Nutrition, Medicine, and Medical Education

It is difficult to pick up a newspaper or a popular magazine and not find at least one article that is related to nutrition. Frequently, radio and television news programs include reports on potential relationships between foods and degenerative diseases such as cancer, stroke, hypertension, and tooth decay.

Most recently reports have shifted in emphasis to include topics related to health promotion and disease prevention. Related to this phenomenon is a burgeoning number of lay persons, health professionals, and businesses which seek financial gain from changing societal values. Such gain comes from a variety of sources including books, specialty foods, and health foods.

Surprisingly, medical training has not treated nutrition with the same degree of currency. Many health care providers, including primary care physicians, complete their training with little study of practical, everyday aspects of nutrition and food, including interrelationships with health and disease. When faced with questions and challenging decisions about diet, the professional becomes aware of the educational gap to be filled in his or her background.

Nutrition is now well-recognized as a necessary component of educational programs for physicians. This is to be valued in that of all factors affecting health in this country, none is more important than nutrition. This can be and has been argued from various perspectives, including health promotion, disease prevention, and therapeutic management. In all cases, serious consideration of nutrition-related issues in the practice of medicine is seen to be one means to achieve cost-effective medical care.

Primary care physicians are in an ideal position to promote optimal nutrition for their patients. Since these physicians often follow patients and their families for many years, they are able to assess tendencies for diseases or disorders such as obesity, hypertension, diabetes mellitus, and heart disease. Not only should therapeutic management of these types of medical problems include nutrition, but the problems often can be prevented by patients following sound advice regarding nutrition offered by their physicians.

Because the physician is viewed by patients to be an expert on nutrition, the physician should be well educated in this field. Physicians in the past have resisted learning nutrition because it was often taught in an apologetic and condoning manner. Content was not related to clinical practice, and physicians were not encouraged to consider themselves as preventers of disease by recognizing patients at potential nutrition or health risk. Nor were physicians taught that proper nutrition throughout a lifetime could be of assistance in maximizing chances of maintaining a disease-limited lifespan. It is believed that these trends can be mediated through study of carefully prepared self-study materials.

The Nutrition in Primary Care Series and the Nutrition in Health Promotion Series

Working with the premise that health care providers, and in particular primary care physicians, need more practical knowledge, the Department of Family Medicine of The Ohio State University has developed and produced 26 self-study modules which individually and collectively address three major themes. By major theme and individual module title, these are:

Normal Diet

1. Nutrient Content of Foods, Nutritional Supplements, and Food Fallacies
2. Appraisal of Nutritional Status
3. Nutrient and Drug Interactions
4. Normal Diet: Age of Dependency
5. Normal Diet: Age of Parental Control
6. Normal Diet: Adolescence
7. Normal Diet: Pregnancy and Lactation
8. Normal Diet: Geriatrics

Nutrition and Therapeutic Management

9. Dietary Management in Obesity
10. Dietary Management in Diabetes Mellitus
11. Dietary Management in Hypertension
12. Dietary Management in Hyperlipidemia
13. Dietary Management in Gastrointestinal Diseases
14. Dietary Management in Alcoholic Patients
15. Nutritional Care of Deteriorating Patients
16. An Office Strategy for Nutrition-Related Patient Education and Compliance

Disease Prevention and Health Promotion

17. Individual and Social Factors
18. Metabolic Principles
19. Risk Factors and Disease Prevention
20. Decoding Fad Diets
21. Protecting Bone and Teeth
22. Exercise and Physical Activity
23. Vitamins and Trace Minerals
24. Behavioral and Neurological Factors
25. Preventing Hospital and Home Malnutrition
26. Questions About Common Ailments

Development of Each Series

The work began with the formation of an Advisory Committee representing physicians, residency directors, residents, and dietitians. The Advisory Committee helped to establish criteria to guide the development of each Series. These criteria included:

1. Topics should relate to the most common reasons for visits to physicians' offices.
2. Topics should include preventive and therapeutic nutritional considerations essential in health.
3. Topics should be directly amenable to applied nutrition concerns.
4. Recognized and accepted major preventive medicine issues must be addressed.
5. Primary prevention must be discernible from secondary prevention.
6. Secondary prevention issues are acceptable as long as they can be used as prospective strategies.
7. The concept of risk factors must be considered as much a major theme as are the themes of health promotion and health maintenance.
8. The topics must be developed such that the dietary information can make significant changes in the lives and potential health problems of patients.
9. The topics should be developed such that the scientific basis is apparent.
10. Each topic should have a strong patient educational thrust.
11. Topics should not replicate but should complement existing educational materials regarding nutrition in primary care.
12. Topics should include applicability to a variety of socioeconomic, environmental, psychological, behavioral, and geographic conditions.
13. Within the broad range of topics, there must be significant attention given to minority groups.
14. Topics must be amenable to individual study, as well as for use in conference settings.
15. Topical content must facilitate physicians using the modules as a reference for answering patients' questions.

The modules were written by dietitians and nutritionists working closely with physicians. Once developed, they were field tested and reviewed by basic and clinical science faculty in a number and variety of educational programs. This process allowed for needed refinements in order to keep the materials to a reasonable length and to assure their relevance to medical practice.

Potential Use of the Modules

The *Nutrition in Primary Care Series* and the *Nutrition in Health Promotion Series* have been found to be a cost- and time-effective means for physicians and physicians-in-training to study about nutrition and to apply the principles in practice. These two Series are effective for individual study, for classroom or conference use, and for teaching concurrent with patient care.

Individual Study

The introduction to each module explains the importance of the particular topic, and the learning goal and objectives clarify what can be achieved through study of the material. The manner in which the content is presented varies from module to module, depending on the nature of the topic. Likewise, self-checks are presented by different means, but in all cases achievement with regard to goals can be evaluated.

On the average, 45 minutes are required to complete each module. However, in most modules, boldfaced highlights have been placed strategically throughout to

- shorten study time of a module,
- allow a module to be studied in blocks of time,
- serve as reference points to specific sections of the module, and
- aid in review.

Teaching

The *Nutrition in Primary Care Series* and the *Nutrition in Health Promotion Series* can be used in the classroom as primary or supplementary readings. Since they have been developed with practicality in mind, they can complement a more detailed presentation of the pertinent biochemical and technical aspects of nutrition.

The boldfaced highlights can be helpful in preparing handouts, slides, and lecture notes. The tables and figures are useful for extracting pertinent information for the preparation of presentations to either professional or lay audiences.

Practice

Most modules contain a number of tables and lists of guidelines; these are useful as "fingertip library" material. When the modules are available in the physician's office, such as in the consultation room, quick reference can be made to appropriate sections to answer questions raised by patients and to give sound nutritional advice.

Many of the appendices can be used as handouts to patients. Most modules contain a section entitled "Resources for the Patient." The entries are an excellent base for patient education. Many of the materials referenced in this section are free or are inexpensive and can be ordered in quantities.

Extended Use of the Materials

Each module is designed to stand alone; however, for the most complete understanding of the application of nutrition to medical practice, it is recommended that the 26 modules be reviewed and studied. For the person who is interested in additional information on particular topics, sections near the end of most modules contain "References" and "Resources for the Physician" which list materials that provide more lengthy discussions of the topics and provide greater depth for one's understanding.

Comprehensive Index

To aid study and practical use of the 26 modules, the following comprehensive index should prove helpful. Please note that:

1. *The italicized numbers in parentheses refer to the module number.*
2. *Page numbers are indicated after the parenthesized module numbers.*
3. *"f" following a page number refers to a figure; "t" refers to a table.*
4. *Module numbers which follow major headings indicate that the module is a rich information source for that topic.*

Absorption, sites *(25)* 9t

Acetylcholine *(24)* 4, 6

Acne vulgaris
- dietary effects *(26)* 2
- treatment *(6)* 13
- vitamins and minerals, therapeutic use *(25)* 2

Activities, energy cost index *(17)* 5t

Adipose tissue, brown *(18)* 12-13

Adiposity (See Obesity)

Adolescence *(Module #6)*
- alcoholism *(14)* 1
- athlete *(6)* 13-16
- eating practices *(17)* 8-9, 20
- fad diets *(20)* 12
- growth and development *(6)* 2
- nutrient requirements *(6)* 2-3
- nutrition counseling *(6)* 16-17
- obesity *(6)* 2, 4-5, 17
- pregnancy *(6)* 8; *(7)* 2, 3, 7
- questionnaire, dietary intake *(17)* 20
- weight-conscious female *(6)* 17

ADP *(22)* 3, 7

Alcohol
- cardio-vascular effects *(12)* 2; *(19)* 16
- content of selected beverages *(14)* 11t
- diabetics *(10)* 15
- digestive system effects *(14)* 5-6
- fetal growth, effect upon *(24)* 15-16
- gastric acid secretion effects *(13)* 3
- hematologic effects *(14)* 7-8
- kilocalorie value *(10)* 15t; *(12)* 10; *(14)* 11t
- nutrient interactions *(3)* 3t; *(14)* 6, 8
- physiological effects *(14)* 5-6
- triglyceride interactions *(12)* 10

Alcoholism *(Module #14)* (See also Alcohol)
- adolescents *(14)* 1
- anemias associated with *(14)* 8
- cardiovascular changes in *(14)* 8
- cell-mediated immunity *(14)* 8
- chronic effects *(14)* 2
- cirrhosis *(14)* 7
- definition *(14)* 1
- diagnosis *(14)* 4-5
- diarrhea *(14)* 6
- elderly *(14)* 2
- fetal alcohol syndrome *(24)* 15-16
- hepatic encephalopathy *(14)* 9t, 11
- hepatitis *(14)* 7
- hyperglycemia *(14)* 7
- hyperlipidemia *(14)* 6
- hypoglycemia *(14)* 6
- infectious diseases associated with *(14)* 8
- liver damage associated with *(14)* 6-8
- malnutrition *(14)* 7
- mineral deficiencies *(14)* 12
- myopathy *(14)* 8
- neurological changes produced by *(14)* 8
- nutritional effects *(14)* 2, 6
- nutritional management *(14)* 9-13
- osteoporosis *(14)* 12
- pancreatitis *(14)* 6
- physiological effects *(14)* 5-6
- pregnancy *(14)* 2
- prevention *(14)* 2
- problems associated with *(14)* 2
- protein synthesis *(14)* 7
- steatorrhea *(14)* 6
- testosterone levels *(14)* 7
- thiamin-related problems *(14)* 8
- transferrin levels *(14)* 8
- treatment programs *(14)* 13
- vitamin supplementation *(14)* 12
- Wernicke's encephalopathy *(14)* 8, 9t
- Wernicke-Korsakoff syndrome *(14)* 8
- women *(14)* 1

Alzheimer's disease *(24)* 8; *(26)* 3

American Diabetic Association *(10)* 10-13; *(13)* 5

American Heart Association *(12)* 6

Amino acids
- content in selected food proteins *(17)* 6t
- imbalances *(15)* 13
- requirements *(6)* 8, 9
- total parenteral nutrition *(15)* 11t, 12t

AMP *(22)* 3, 4, 7, 19

Amphetamines *(9)* 6-7

Analgesics *(3)* 5t

Anemia *(8)* 9-10; *(14)* 8; *(25)* 11-12t, 13t

Anergic metabolic profile *(25)* 31

Anoretic drugs (See Amphetamines)

Anorexia nervosa *(Module #24)*
- adolescent females *(6)* 16
- body image *(24)* 18
- characteristics *(24)* 16, 18, 21t
- chemotherapeutic causes *(3)* 7t
- diagnostic criteria *(24)* 17
- elderly *(8)* 9
- epidemiology *(24)* 17-18

physiological and nutritional changes of *(24)* 18-19
prevention *(24)* 20-21
psychological characteristics *(24)* 18
treatment *(24)* 19-20

Anoxia *(18)* 3, 4

Antacids *(3)* 5t; *(13)* 2; *(21)* 14-15t

Anthropometric measurements
arm circumference *(2)* 10, 38-39; *(25)* 2-3, 26t, 27-28
head circumference *(4)* 11
height and weight *(2)* 6, 8; *(4)* 11; *(25)* 2-3, 25
infant *(4)* 10-12
pregnancy *(7)* 12-14
skinfold thickness *(2)* 9-10, 34, 35t, 36; *(4)* 11; *(25)* 2-3

Anticholinergic drugs *(13)* 2

Anticonvulsants *(3)* 6t

Antihypertensive drugs *(8)* 9

Anti-inflammatory drugs *(3)* 6t; *(8)* 9

Antimicrobials *(3)* 6t

Antimitotics *(3)* 7t

Apoenzyme *(23)* 2

Arm circumference (See also Anthropometric measurements) *(2)* 6-10, 34-39; *(4)* 10-12; *(25)* 26t, 27-28

Ascorbic acid (See Vitamin C)

Aspartame *(18)* 27

Aspartate *(24)* 4

Aspirin *(8)* 9, 10; *(13)* 3

Astrocyte *(24)* 3

Atherosclerosis
cholesterol, role in *(19)* 7-8
diabetic patients, development in *(10)* 8
risk factors *(12)* 2
signs indicative of premature development *(12)* 2

Athlete (See also Athletic training)
body composition *(13)* 13-15t
fluid intake *(6)* 15-16
glycogen *(6)* 14-15
nutritional needs *(6)* 13-15
skin-fold measurements *(6)* 14t
wrestling *(6)* 30; *(22)* 14-16

Athletic training *(Module #22)*
body building *(22)* 16-17
caffeine use *(22)* 19
carbohydrate intake *(22)* 20-21
children *(22)* 26-27
diet *(22)* 2-3, 14
energy requirement *(22)* 19
fluid intake *(22)* 21
glycogen loading *(22)* 18-19f
meal distribution *(22)* 3
post-game meals *(22)* 25-26
pre-game meals *(22)* 23-25t
protein intake *(22)* 20
protein supplementation *(22)* 16
vitamin and mineral supplementation *(22)* 21-23
wrestling *(22)* 14-16

ATP *(18)* 3; *(22)* 3, 6-8

Attention deficit disorder *(22)* 26-29

Attitudes, contribution to nutrition management *(17)* 10-11

Behavior modification *(9)* 13, 15, 23-27; *(16)* 9-10; *(20)* 3

Biochemical analyses
adults *(2)* 10-14
infants *(4)* 12, 34t
pregnancy *(7)* 15

Bioflavinoids *(23)* 32

Bland, no-gastric-stimulant diet *(13)* 3, 4t, 5t

Body building *(22)* 16-17

Bones *(Module #21)*
calcitonin *(21)* 6
composition and structure *(21)* 3
formation and remodeling, regulation *(21)* 4-5
function of major cells *(21)* 3-4t
glucocorticoids *(21)* 11
insulin *(21)* 11
osteomalacia *(21)* 8-9t
paracrine factors *(21)* 11
parathyroid hormone *(21)* 5-6
rickets *(21)* 8-9t
sex hormones *(21)* 10-11
synthesis and remodeling *(21)* 4
thyroid hormone *(21)* 10
types *(21)* 3
vitamin D *(21)* 6-8

Brain
acetylcholine synthesis *(24)* 6
catecholamine synthesis *(24)* 4, 6
metabolism *(24)* 4
neurotransmitters *(24)* 4-9

normal growth and development *(24)* 3-4
serotonin synthesis *(24)* 4-6
undernutrition effects *(24)* 11

Breastfeeding *(Module #7)*
drug usage during *(7)* 44-47t
initiation of *(7)* 10
nutritional supplements *(4)* 7
patient education *(7)* 11t
problems associated with *(7)* 10-12, 40-43t

Bulimia *(Module #24)*
characteristics *(24)* 21-22
medical risks associated with *(24)* 22t
psychopathology *(24)* 22
treatment *(24)* 22-23

Caffeine *(13)* 23-24t
content in selected foods *(13)* 23-24t; *(18)* 24-25t
effects *(18)* 22-23t

Calcitonin *(21)* 6

Calcium
absorption, effects of age upon *(21)* 14
adolescent, requirement *(6)* 10
children, requirement *(5)* 8t
content in foods *(1)* 8t; *(8)* 22t; *(21)* 13t
elderly, requirement *(8)* 8
hypertension, role in *(19)* 15
infant, requirement *(4)* 6
maintenance and regulation of serum levels *(21)* 4-11
postmenopausal women *(8)* 8
pregnancy *(7)* 7, 9, 10
restriction diet *(25)* 35
supplementation *(21)* 15-16
toxicity *(21)* 16

Cancer *(Module #15; Module #19)*
cholesterol *(19)* 24
dietary recommendations *(19)* 20-22
eating problems associated with *(15)* 14-15
fiber *(19)* 22
nitrates *(19)* 23
nutritional intervention *(15)* 13-16
nutritional support *(19)* 25
risk factors *(19)* 19-20t
selenium *(19)* 24
vitamins *(19)* 22-24

Carbohydrate
body detection and response *(18)* 14, 17
content in food *(11)* 20-21t; *(12)* 11t
contribution to dental diseases *(5)* 15t
diabetic, requirement *(10)* 7, 8, 9t, 10
energy intake *(13)* 3
gastric acid secretion, effect upon *(13)* 3
hyperlipidemic treatment *(12)* 9-10
infant, requirement *(4)* 6
loading *(22)* 18
metabolic effects *(18)* 14

Cardiac glycosides *(3)* 8t

Cardiovascular disease *(Module #19)*
aerobic exercise *(19)* 18-19
alcohol *(19)* 16
cholesterol *(19)* 7-9
diabetes mellitus *(19)* 16
diet recommendations *(19)* 9-10
hypertension *(19)* 10-15
lipid transport defects *(19)* 5-9
obesity *(19)* 16
personality traits *(19)* 19
risk factors *(19)* 3-5t
smoking *(19)* 17-18
triglyceride levels *(19)* 9

Carnitine *(23)* 32

Catecholamine synthesis *(24)* 4, 6

Childhood eating practices, impact upon adult habits *(17)* 12

Children *(Module #5)*
anemia *(5)* 7
athletes *(22)* 26-27
biochemical test interpretation *(5)* 28t
dental diseases of *(5)* 15
desserts *(5)* 4
diabetes in *(10)* 10
diet history of *(5)* 7-9
diet plan, daily *(5)* 5t
eating patterns of *(5)* 2-4, 11; *(17)* 8
fluoride *(5)* 16
food guide for *(5)* 3; *(17)* 25t
foods enjoyed by *(5)* 3
growth charts *(5)* 23-26f
iodine *(5)* 2
iron *(5)* 2, 7
kilocalorie, intake recommended *(5)* 12t
milk requirement *(5)* 3
Minimum Daily Requirements *(5)* 10
nutrient needs *(5)* 2-4
obesity *(5)* 7, 13-14
portion sizes *(5)* 3
protein needs *(5)* 2
Recommended Dietary Allowances *(5)* 8-9t, 10
snacks *(5)* 3-4
stress, impact upon diabetic child *(10)* 10
vitamin requirement *(5)* 16
weight loss *(5)* 14

Cholecystitis *(13)* 7

Cholelithiasis *(13)* 7

Cholesterol
- cancer, role in *(19)* 24
- cardiovascular disease, role in *(19)* 7-10
- controlling intake *(10)* 38
- elderly *(8)* 5
- hyperlipidemia *(12)* 3-5, 9
- laboratory tests *(12)* 3
- metabolism *(18)* 22
- sources *(1)* 9-10

Cholestyramine *(12)* 5t

Choline *(23)* 32; *(24)* 6, 8-9

Chromium *(23)* 20-21

Chylomicron *(18)* 6

Clofibrate (Atromid-S) *(12)* 5t

Cobalamine (See Vitamin B12)

Coenzyme Q *(23)* 32

Colic *(4)* 6

Community resources, nutrition *(17)* 13, 16

Compliance, maximizing *(17)* 13; *(20)* 3, 12

Constipation
- diet *(25)* 6-7
- elderly *(8)* 7
- fluid intake *(25)* 7
- infants *(4)* 6
- laxatives *(25)* 7
- treatment *(25)* 18t, 34

Copper *(23)* 21-22

Cori cycle *(22)* 7

Covalent modification *(18)* 18, 32

Criminal behavior, effects of diet upon *(24)* 36

Crohn's disease *(13)* 18

Culture, impact upon treatment of nutrition-related disorders *(17)* 9

Cyclamate *(18)* 27

Cyclic AMP, hormonal control *(18)* 33f, 34t

Daily Food Guide (See Guide to Good Eating)

Dehydration *(6)* 15-16; *(22)* 10-11

Demographic data, contribution to nutrition management
- age and gender *(17)* 8
- culture *(17)* 9
- education *(17)* 9-10
- medical history *(17)* 10
- race and religion *(17)* 10

Dental disease *(5)* 15-16

Depression *(24)* 7-8

Diabetes mellitus *(Module #10)*
- adult-onset (ketosis-resistant) *(10)* 2, 3, 10, 13
- alcohol usage *(10)* 15
- American Diabetic Association diet *(10)* 10-13
- atheriosclerosis *(10)* 8
- carbohydrate *(10)* 7, 8, 9t, 10, 12
- cardiovascular disease *(19)* 16
- characteristics of *(10)* 2
- children *(10)* 10
- cholesterol *(10)* 38
- combination dishes *(10)* 14
- convenience foods *(10)* 14
- definition *(10)* 2
- diabetic foods *(10)* 14
- diabetic ketoacidosis *(10)* 2
- diet history *(10)* 11
- diet therapy goals *(10)* 4
- dietary prescription *(10)* 4-10
- dietitian *(10)* 14, 29
- eating out *(10)* 14
- elderly *(8)* 7
- exercise precautions *(10)* 10
- fast foods *(10)* 50-51t
- fat *(10)* 7, 8, 12
- food exchange system *(10)* 11-13, 28-40, 44-51t
- food labels *(10)* 30
- food measurement *(10)* 31, 42
- hyperlipidemia *(10)* 8
- hypoglycemic episode prevention *(10)* 8
- insulin-dependent (See Diabetes mellitus: juvenile-onset)
- juvenile-onset (insulin-dependent) *(10)* 2, 3, 8, 10
- ketoacidosis episodes in children *(10)* 10
- ketosis-resistant (See Diabetes mellitus: adult-onset)
- kilocalorie requirement *(10)* 5
- lifestyle, role in nutrition *(10)* 29
- meal planning *(10)* 11, 13, 27-40
- metabolic defects *(10)* 2, 3t
- mineral requirements *(10)* 8
- nutrients required *(10)* 7-8
- obesity *(10)* 2; *(19)* 16-17
- patient education *(10)* 8, 10, 13, 14
- peripheral resistance to insulin *(10)* 3
- post-prandial hyperglycemia *(10)* 2
- pregnancy *(10)* 7
- protein *(10)* 7, 8, 12

sick days *(10)* 15-16
snacks *(10)* 8, 9
Somogyi effect *(10)* 10
stress-related incidents in children *(10)* 10
surgery *(10)* 7
vascular disease in *(10)* 4
vitamin requirements *(10)* 8
weight *(10)* 5-6, 13; *(19)* 17

Diagnostic-related groups *(25)* 1-2

Diarrhea *(4)* 3, 6; *(13)* 18; *(14)* 6

Diet
aids (non-prescription drugs) *(18)* 27-28
American Diabetic Association *(10)* 10-13
American Heart Association *(12)* 6
bland, no gastric stimulant diet *(13)* 3-5t
carbohydrate-modified diet *(12)* 9-10
children's *(5)* 2-5t
cholesterol, restricted *(12)* 3-5, 9
classification *(20)* 5-9t
diabetes *(10)* 4-10
elderly *(8)* 5-10
elemental (See Diet: tube feeding)
ethnic background *(1)* 15-17, 31-34t
evaluation (See Nutrition status, evaluation)
fad (See Fad diets)
food exchange system *(10)* 11-13, 28-40, 44-51t
history *(2)* 18t; *(4)* 12-13; *(5)* 8, 10; *(7)* 15-18f
hyperlipidemia *(12)* 4-10
lactose-restricted diet *(13)* 11-14t
low-carbohydrate diet *(18)* 10-11
low-fat, bland diet *(13)* 7-9t
low-fiber diet *(13)* 16
parenteral feeding *(15)* 10-13
physical performance *(22)* 2-3
programs, evaluation *(20)* 11t
sick day *(10)* 5
sodium-restricted *(11)* 7-9
soundness, determining *(20)* 3-4
tube feeding *(15)* 5-10
vegetarian *(17)* 6t

Diethylpropion *(9)* 7

Dietitian
role in counseling *(10)* 29; *(11)* 7
role in referrals *(2)* 26; *(12)* 8; *(14)* 10; *(15)* 16; *(16)* 12

Digitoxin *(8)* 9

Digoxin *(8)* 9

Disease prevention *(Module #19)* *(1)* 7-8, 11-13; *(2)* 15

Diseases, risk factors *(Module #19)* *(19)* 2-3, 25

Diuretics *(3)* 8t; *(8)* 9

Diverticulitis *(13)* 16

Diverticulosis
development of *(13)* 15
dietary management *(13)* 15-17t

Dopamine *(24)* 4, 6, 7

Drug/food interactions (See Drug/nutrient interactions)

Drug/nutrient interactions *(Module #3)*
alcohol *(3)* 3t; *(14)* 6
analgesics *(3)* 5t
antacids *(3)* 5t; *(8)* 9
anticonvulsants *(3)* 6t
anti-inflammatory drugs *(3)* 6t
antimicrobials *(3)* 6t
antimitotics *(3)* 7t
aspirin *(8)* 10
calcium absorption *(21)* 14-15
cardiac glycosides *(3)* 8t; *(8)* 9
diuretics *(3)* 8t; *(8)* 9
hypocholesterolemics *(3)* 9t
hypolipidemics *(12)* 5t
laxatives *(3)* 9t
oral contraceptives *(3)* 10t

Eating disorders (See also Anorexia nervosa and Bulimia)
aging *(17)* 9
factors affecting onset *(17)* 9

Eating patterns
adolescents *(6)* 17
children *(5)* 3-4
modification of *(9)* 23-27
obese patients *(9)* 15

Eating practices, aberrant
macrobiotic diets *(17)* 6, 7t
others *(17)* 6, 7
vegetarian diets *(17)* 4, 6, 6t

Eggs, foods which contain *(26)* 29t

Elderly (See Geriatrics)

Electrolytes *(6)* 15, 16; *(22)* 11-13

Elemental diets (See also Tube feedings) *(15)* 9-10

Epilepsy
dietary control *(26)* 7
drug therapy *(26)* 7-8

Epinephrine *(24)* 4

Estrogen, supplementation *(21)* 17

Estrogens (See Oral contraceptives)

Ethnic background
- American Indian *(1)* 16
- Black American *(1)* 13-14, 31t; *(7)* 32t; *(11)* 6
- Chinese-American *(1)* 16, 32t; *(7)* 35t; *(11)* 6
- Greek-American *(11)* 6
- Italian-American *(1)* 16; *(11)* 6
- Japanese-American *(1)* 34; *(7)* 33t
- Jewish *(1)* 17; *(11)* 6
- Mexican-American *(1)* 16, 31t; *(7)* 32t
- Philipino-American *(1)* 33t; *(7)* 34t
- Puerto Rican-American *(1)* 16

Exercise *(Module #22)* (See also Athletic training)
- adult needs during *(22)* 26
- appetite, effects upon *(22)* 8
- cardiovascular disease *(22)* 8
- electrolyte loss and replacement during *(22)* 11-13
- energy costs *(22)* 13-14, 15t, 19
- fluid intake *(22)* 10-11
- low intensity *(22)* 17-18
- nutrition during training *(22)* 14
- weight loss *(20)* 3, 12

Fad diets *(Module #20)*
- adolescent girls *(20)* 12
- elderly *(8)* 8
- obesity *(9)* 6, 8t
- prevalence *(20)* 2-3
- redirecting patients *(20)* 4, 12
- soundness *(20)* 3-4

Fast foods *(6)* 8, 24-28t; *(10)* 14, 50-51t

Fat *(4)* 3
- alcoholism *(14)* 12
- calculation *(10)* 12
- content in foods *(1)* 11t; *(11)* 20-21t
- content in milk *(4)* 6
- diabetic, requirement *(10)* 7, 8
- gastric acid secretion, effect upon *(13)* 3
- infant, requirement *(4)* 3, 5, 6
- production and storage *(18)* 5-7
- stores, altering *(18)* 8-13
- stores, mobilizing *(18)* 7

Fat-cell hypothesis *(5)* 13

Feeding programs for elderly *(8)* 10

Feingold's hypothesis *(24)* 28-29

Fenfluramine *(9)* 7

Fetal alcohol syndrome (See Alcoholism)

Fiber
- colon cancer *(19)* 22
- content in selected foods *(1)* 13t; *(8)* 21t; *(13)* 25t; *(19)* 11t; *(26)* 32-33
- contribution to diet *(1)* 13; *(13)* 15-17; *(18)* 21
- elderly, level recommended *(8)* 7
- serum lipid levels, effect upon *(19)* 10
- sources *(10)* 34-35

Fluid intake *(6)* 15-16

Fluoride *(4)* 4, 7; *(5)* 16; *(21)* 17

Fluorine *(23)* 22-23

Folic acid (Folacin) *(7)* 6t; *(8)* 10; *(10)* 34; *(23)* 19

Food allergies *(Module #26)*
- asthma *(26)* 8-9
- drug therapy *(26)* 10-11
- incidence of *(26)* 8
- prevention *(26)* 9
- treatment *(26)* 10

Food exchange system *(10)* 11-13, 28-40

Foods *(Module #1)*
- caffeine and theobromine content *(13)* 23-24t
- caloric content *(1)* 6-7t
- carbohydrate content *(1)* 6-7t; *(12)* 11t
- cholesterol content *(1)* 9-10t
- composition *(1)* 27-30t; *(8)* 17-18t; *(23)* 48-51
- convenience *(10)* 14, 44-49t
- diabetic *(10)* 14
- diaries *(9)* 15, 23
- drugs, effect upon (See also Drug/nutrient interactions) *(3)* 10-14t
- ethnic choices *(1)* 15-17, 31-35t; *(7)* 32-35t
- fallacies *(1)* 19-23t
- fast (See Fast foods)
- fat content *(1)* 6-7t
- fatty acid composition *(12)* 10t
- fiber content *(13)* 25-28t
- groups *(1)* 2-14; *(2)* 14-15
- infant *(4)* 7-8, 9t
- intake, recommendations at various ages *(23)* 33t
- labels *(1)* 18-19
- lactose content *(13)* 13t
- nutritional value *(1)* 5-13
- protein content *(1)* 6-7t
- purpose *(18)* 3
- services for elderly *(8)* 10
- sodium content *(1)* 10t; *(11)* 4, 5t, 7, 20-21t, 23t

Formula, infant *(4)* 5-7

Frederickson classification of hyperlipidemia *(12)* 3-4t

Fructose *(18)* 26-27

Gallbladder disease *(13)* 7, 8-9t

Gallstones *(26)* 11

Gamma-aminobutyric acid *(24)* 4

Gastrectomy, controlling complications of *(25)* 8t

Gastric acid
- foods decreasing secretion *(13)* 4t
- peptic ulcer, role in the development of *(13)* 2
- stimulants *(13)* 3, *5*

Gastric inhibitory peptide *(18)* 17; *(24)* 33-34

Gastrointestinal diseases *(Module #13)*
(See individual disease listings)

Geriatrics *(Module #8)*
- aging process *(8)* 3; *(17)* 9
- alcoholism *(14)* 2
- anemia *(8)* 9-10
- calcium requirement *(8)* 8
- cardiovascular disease *(8)* 5, 7
- constipation *(8)* 7
- diabetes *(8)* 7
- diet evaluation *(8)* 4-5; *(17)* 21
- factors affecting nutritional status *(8)* 4
- fad diets *(8)* 8
- fiber *(8)* 7
- glycosuria *(8)* 7
- kilocalorie needs *(8)* 6
- medical problems *(8)* 8-9
- nutrients to evaluate *(8)* 3
- nutrition services of *(8)* 10
- nutritional planning for *(8)* 11
- obesity *(8)* 8
- osteoporosis *(8)* 8
- recommended diet *(8)* 5
- Recommended Dietary Allowances *(8)* 14t
- vitamin deficiencies *(8)* 3, 7

Glial cells *(24)* 3

Glucagon *(9)* 9

Glucocorticoids *(21)* 10

Glucose
- conservation *(18)* 4-5
- glycogen storage *(18)* 4
- maintenance between meals *(18)* 4-5
- synthesis *(18)* 4
- utilization by body *(18)* 3-4

Glutamate *(24)* 4

Glycogen, loading in athlete *(6)* 14-15; *(22)* 18-19f

Glycosuria *(8)* 7

Glycosylation *(18)* 6

Gout *(26)* 4, 31

Guide to Good Eating *(1)* 2-5; *(2)* 14-15, 21-22f; *(8)* 15-16f; *(17)* 22-23; *(20)* 3; *(22)* 4-5t; *(23)* 46-47; *(25)* 12, 32-33

Growth hormone *(21)* 10

Hair analysis *(23)* 30

Head circumference *(4)* 11

Health foods, nutrient composition *(17)* 8t

Height and weight *(2)* 6, 8t; *(10)* 5t

Hemorroids *(26)* 11-12

Hepatic encephalopathy *(14)* 11

Herbal teas *(20)* 14, 21

Hiatus hernias *(13)* 10

Hispanics (See Ethnic background)

Holoenzyme *(23)* 2

Home canning and freezing *(1)* 14

Hyperactivity (See Attention deficit disorder)

Hyperammonemia *(15)* 13

Hypercalcemia *(15)* 13; *(21)* 16

Hypercalciuria *(21)* 16; *(26)* 12-13; 36

Hyperchloremic metabolic acidosis *(15)* 13

Hyperglycemia *(14)* 7

Hyperlipidemia *(Module #12)*
- alcohol *(12)* 2, 10; *(14)* 6
- carbohydrate tolerance test *(12)* 3
- cholesterol *(12)* 3
- diabetes *(10)* 8
- diet, influence *(12)* 4-6
- dietary management *(12)* 6-11
- drug/nutrient interactions *(12)* 5t
- drug therapy *(12)* 4
- family history *(12)* 2
- Frederickson classification *(12)* 3-4t
- lipid testing *(12)* 3
- physical examination *(12)* 2
- risk factors *(12)* 2
- tests *(19)* 6

Hyperlipoproteinemia (See Hyperlipidemia)

Hypertension *(Module #11; Module #19)*
- calcium *(19)* 15
- cardiovascular disease *(19)* 10-11
- diet, evaluation *(11)* 2-7
- diet history *(11)* 2
- dietary treatment objectives *(11)* 2
- drugs, antihypertensive *(19)* 12t, 14
- drugs, treatment side effects *(19)* 11-12, 14
- hypokalemia *(11)* 7
- kilocalorie needs *(11)* 4

potassium *(11)* 7, 9t, 10, 27-28t
protein needs *(11)* 9, 10
renal deterioration *(11)* 9-10
salt substitutes *(11)* 7, 9-11
seasonings *(11)* 7, 24-25t
sodium *(11)* 5-9, 10, 20-21, 23t; *(19)* 14-15
weight loss, effect on blood pressure *(11)* 4

Hypertriglyceridemia (See Hyperlipidemia)

Hypocalcemia *(15)* 13

Hypocholesterolemic drugs *(3)* 9

Hypoglycemia *(Module #24)*
alimentary *(23)* 32
cancer *(15)* 11
diabetes *(10)* 8; *(24)* 31
fasting *(24)* 31
idiopathic postprandial *(24)* 31-34
treatment *(24)* 34

Hypokalemia *(11)* 7

Hypophosphatemia *(15)* 13

Hypothalamus *(9)* 4-5

Infant *(Module #4)*
anemia *(4)* 12
anthropmetric measurements *(4)* 10-12
biochemical tests *(4)* 12
brain growth and development *(24)* 3
carbohydrate requirement *(4)* 3, 6
developmental needs *(4)* 4-5
dietary questionnaire *(17)* 19
failure-to-thrive *(17)* 8; *(24)* 12-13
fat requirement *(4)* 6
feeder *(4)* 4
feeding practices *(4)* 24-25t
feeding problems *(4)* 26-28t
food allergies *(26)* 9
foods *(4)* 8-10, 20-23t
formula *(4)* 5-7; *(26)* 10t
growth charts *(4)* 29-33f
introduction to solid food *(4)* 4-5
iron requirement *(4)* 4
mineral requirement *(4)* 6-7
nutrition assessment *(4)* 10-13
nutritional needs *(4)* 5-8
protein requirement *(4)* 3, 4, 5-6
supplementation of diet *(4)* 7-8
undernutrition, effects upon intellectual behavior *(24)* 9-11
vitamin requirement *(4)* 7

Immune function *(25)* 12-13

Inositol *(23)* 32

Insomnia *(24)* 7

Insulin
bones, effect upon *(21)* 10
metabolic regulation *(18)* 17-18
processes and enzymes regulated by *(18)* 19t, 20t
release *(18)* 17-18

Intellectual development, effect of diet *(24)* 9-12

Iodine *(6)* 12; *(5)* 2

Iron *(23)* 23-25
adolescent, requirement *(6)* 11-12
children, requirement *(5)* 2, 7
content in foods *(1)* 15t; *(6)* 29t; *(8)* 23t; *(22)* 22t
deficiency in elderly *(8)* 10
infant, requirement *(4)* 4, 6
pregnancy, requirement during *(7)* 5-6, 9-10
sources *(10)* 38
stores, increasing *(22)* 22t
supplementation *(4)* 7; *(5)* 2
women, requirement *(1)* 15; *(22)* 21

Iron deficiency anemia *(8)* 10; *(14)* 8

Irritable bowel syndrome *(13)* 19

Ketoacidosis *(10)* 10

Kidney stones *(23)* 19t
dietary modifications *(26)* 12-14, 19t
formation *(26)* 12
oxalate stones *(26)* 14
renal stones *(26)* 14

Kilocalories
content of food *(1)* 6-7t, 9t; *(11)* 20-21t
diabetic, requirement *(10)* 5
elderly, requirement *(8)* 6
estimation of needs *(8)* 6, 19f; *(11)* 18f
infant, requirement *(4)* 2-5
infants and children, recommended intake *(5)* 12t
pregnant and lactating women, requirement *(7)* 3-5

Kwashiorkor *(25)* 11, 31t

Laboratory tests (See Biochemical analyses)

Lactation (See Breastfeeding and/or Pregnancy)

Lactose intolerance
consequences of lactose consumption *(13)* 11
diet suggested *(13)* 12-13t
lactase deficiency *(13)* 11, 14
lactose content in milk products *(13)* 13t

Laetrile *(23)* 32

Laxatives *(3)* 9t; *(21)* 15

L-dopa *(24)* 7

Lecithin *(1)* 21t; *(24)* 6, 8-9

Lifestyle, contribution to nutrition management

(Module #17)
aberrant eating practices *(17)* 6-7
activities and occupation *(17)* 3-4
cooking and shopping *(17)* 3
dietary patterns *(17)* 4-6
ethnic food practices *(17)* 3
food tolerance *(17)* 7
living patterns *(17)* 2-3
weight control regimens *(17)* 7-8

Lipids (See Hyperlipidemia)

Lipoproteins *(12)* 3-4; *(19)* 5-6

Liver
alcoholism *(14)* 6-7
glucose uptake *(18)* 17
metabolism (fed state) *(18)* 15t, 32
postabsorptive state *(18)* 16t, 32, 34

Lorelco (see Probucol)

Macrobiotic diet, regimen *(17)* 7t

Macrocytic anemia *(14)* 8

Magnesium *(6)* 12; *(23)* 25-26

Malabsorption *(23)* 30-31

Malnutrition *(Module #15)*
alcoholism *(14)* 7
assessment and evaluation *(15)* 2
cancer *(15)* 13-16
characteristics of *(15)* 1
diagnosis *(25)* 2-5t
dietary intervention *(15)* 2-13
oral intake, increasing *(15)* 3-5
parenteral nutrition *(15)* 10-13
predisposing factors *(25)* 1
tube feeding *(15)* 5-10

Malnutrition, hospital induced *(Module #25)*
causes *(25)* 1
issues necessitating prevention *(25)* 1-2
strategies to improve *(25)* 13-20

Manganese *(23)* 26

Mazindol *(9)* 7

Meal planning
children *(5)* 5t
diabetic *(10)* 11-13, 27-40
pregnancy *(7)* 8-9, 27-38
sodium-restricted *(11)* 8t
vegetarian *(7)* 31t

Meat
cholesterol content *(1)* 9-10t
disease prevention *(1)* 11-12
fats *(1)* 11
group *(1)* 8-12
kilocalories *(1)* 9t
nutritional value *(1)* 8-12
sodium content *(1)* 8, 10t

Medication (See also Drug/nutrient interactions)
appetite, effect upon *(3)* 15-17
nutrient considerations *(3)* 19
nutrient utilization *(3)* 5-10t
sodium content of *(3)* 14-15t
taste sensitivity, effect upon *(3)* 17

Megaloblastic anemia *(14)* 8

Megavitamins *(23)* 30-31

Methyl-dopa *(24)* 7

Migraine headache *(26)* 19t
allergens *(26)* 15-16
foods implicated *(26)* 15
vitamins and minerals *(26)* 15

Milk
calcium content *(1)* 8t
foods containing *(26)* 29t
group *(1)* 5-7
lactose content *(13)* 13t
nutritional value *(1)* 5-8; *(4)* 5-8; *(8)* 7
osteoporosis *(1)* 7-8; *(2)* 15

Minerals (See also individual mineral listings)
alcoholism, deficiency *(14)* 12
diabetic, requirement *(10)* 8
infant, recommended intake *(4)* 2-3
infant, requirement *(4)* 3-4
pregnancy, recommended intake *(7)* 5-8
sources *(1)* 40
supplements *(1)* 36, 39t
trace *(6)* 12; *(23)* 4, 20-29

Minimum Daily Requirements *(5)* 10

Moertel *(23)* 32

Molybdenum *(23)* 27-28

Monosaccharides *(4)* 3

Muscle fibers
ATP generation *(22)* 6-8
glycogen loading *(22)* 18-19
high-energy phosphate sources *(22)* 3, 6
recovery after exercise *(22)* 8
types *(22)* 9

Multiple sclerosis *(26)* 16

Myelination *(24)* 4

Myopathy *(14)* 8

Neurons *(24)* 3

Neurotransmitters *(24)* 4

Niacin *(1)* 12; *(7)* 6; *(23)* 15-16

Non-nutritive sweeteners *(18)* 28

Nonvitamins *(23)* 31-32

Norepinephrine *(24)* 6, 7

Nutrient content of foods *(Module #1)*

Nutrient density *(5)* 11; *(6)* 17

Nutrition claims, evaluating *(20)* 2, 13-14

Nutrition lesion, events leading to *(23)* 2f

Nutrition management
- after hospital discharge *(25)* 20-21
- dumping syndrome *(25)* 25
- plan development *(17)* 2, 13

Nutrition problems, criteria for identifying
- diagnostic testing *(25)* 4-5
- dietary habits *(25)* 9-11
- drug/nutrient interactions *(25)* 7-8
- medical problems *(25)* 9
- pre-existing conditions *(25)* 6
- surgeries *(25)* 4-5, 7-9
- treatment side effects *(25)* 7

Nutrition products *(20)* 13-14, 15-20t

Nutrition programs for elderly *(8)* 11

Nutrition status *(Module #2)*
- aging *(8)* 3
- alcoholism *(14)* 9-13
- anthropometric measures *(2)* 6-10, 34-39f; *(4)* 10-12
- biochemical analyses *(2)* 10-14; *(4)* 12, 34t
- checklist *(2)* 24-25t
- clinical signs *(2)* 7t
- counseling *(16)* 3-7
- deficiencies *(2)* 3, 7t
- drugs *(3)* 3-10t
- evaluation (See Nutrition status, evaluation)
- factors affecting *(8)* 4
- infancy, requirements *(4)* 2-4
- lifestyle *(10)* 29; *(17)* 2-10
- medical history *(2)* 3-6
- physical exam *(2)* 6
- problems *(2)* 3-5
- programs (See Nutrition programs)
- referral *(2)* 26
- risk populations *(2)* 23-24
- supplemental products, nutrient content *(15)* 4-5t

Nutrition status, evaluation *(Module #2)*
- adolescents *(6)* 5-6
- anthropometric measures *(2)* 6-10
- biochemical tests *(2)* 10-14
- checklist *(2)* 24-25t
- children *(5)* 7-12
- elderly *(8)* 3, 4-5
- food intake *(1)* 2; *(2)* 14-20t; *(23)* 5t
- infants *(4)* 10-13
- methods *(2)* 16-20t
- parameters, clinical *(2)* 3-6
- pregnant women *(7)* 12-18t
- procedures *(2)* 3-19

Nutrition supplements *(Module #1)*

Nutrition support
- enteral feedings *(25)* 14, 16t, 17t, 38-40
- feeding modules *(25)* 41
- oral feedings *(25)* 14, 15t, 38-40
- parenteral feedings *(25)* 17t, 18-20

Obesity *(Module #9)*
- adolescents *(6)* 2, 4-5, 17
- assessment and evaluation *(9)* 2-3, 6, 7
- behavior modification *(9)* 13, 15, 23-27
- body density *(9)* 3
- body mass index *(9)* 3
- cardiovascular disease *(19)* 16-17
- causes *(9)* 4-5
- children *(5)* 13-14
- consequences *(9)* 5-6
- definition *(9)* 2
- diabetes *(19)* 16-17
- diagnosis (See Obesity: assessment and evaluation)
- diet history *(9)* 3
- drugs *(9)* 6-9
- eating patterns *(9)* 15
- elderly *(8)* 8
- factors affecting *(9)* 3-4
- fad diets *(9)* 6, 8t
- family support *(9)* 17
- goal setting *(9)* 12-13
- hypercellular *(9)* 5
- hypertrophic *(9)* 5
- hypothalamus (See Obesity: regulatory mechanisms)
- laboratory tests (See Obesity: assessment and evaluation)
- medical problems aggravated by *(9)* 9
- motivating patients *(9)* 9-10, 12
- physical activity *(9)* 15
- regulatory mechanisms *(9)* 4-5
- reduction diet *(9)* 9-13
- self-help groups *(9)* 15-16t, 17
- treatments *(9)* 6-17

Oligodendrocytes *(24)* 3

Oral contraceptives *(3)* 10t; *(6)* 13

Osteoarthritis *(26)* 4

Osteoblasts *(21)* 3-4

Osteoclasts *(21)* 3-4

Osteocytes *(21)* 3-4

Osteomalacia *(6)* 10; *(21)* 8-9

Osteoporosis *(Module #21)*
- adolescents *(6)* 10
- alcoholism *(14)* 12
- calcium supplementation *(21)* 15-16
- consequences of *(21)* 2
- definition *(21)* 2
- elderly *(8)* 8
- estrogen supplementation *(21)* 17
- exercise *(21)* 17
- fluoride supplementation *(21)* 16-17
- prevention *(21)* 12-14
- risk factors *(21)* 12
- susceptibility *(21)* 2
- treatment *(21)* 15-16
- vitamin D supplementation *(21)* 17

Pancreatitis *(14)* 6

Pangamic acid *(23)* 32

Pantothenic acid *(23)* 18

Para-aminobenzoic acid *(23)* 32

Paracrine factors, effect upon bones *(21)* 11

Parathyroid hormone *(21)* 5-6

Parenteral nutrition *(Module #15)*
- amino acid imbalances *(15)* 13
- amino acid, recommended intake *(15)* 11t
- fat emulsions *(15)* 10
- hypoglycemia *(15)* 11
- metabolic complications *(15)* 11
- monitoring patients *(15)* 14t
- nutrients provided *(15)* 10-11
- vitamin and mineral aberrations *(15)* 13
- vitamin and mineral content, assessment of *(15)* 11

Parkinson's disease *(24)* 7

Patient education *(Module #16)*
- behavior modification *(16)* 9-10
- behavioral change, climate for promotion *(16)* 9
- behavioral change, motivation of *(16)* 7-8
- behavioral plans, implementation of *(16)* 6-7
- behavioral programs *(16)* 9
- counseling, characteristics *(16)* 3-4
- counseling, stages *(16)* 4-7
- diabetes mellitus *(10)* 8, 10, 13, 14
- dietitian, role *(16)* 12
- evaluation *(16)* 7
- goal-setting *(16)* 5-6
- model for *(16)* 12-14
- resources *(16)* 10-12, 23

Peptic ulcer disease *(Module #13)*
- description *(13)* 2
- dietary treatment *(13)* 3-4t
- etiology *(13)* 2
- meal size *(13)* 5
- medical management goals *(13)* 2
- nutrient effects upon gastric acid secretion *(13)* 3

Peptides *(24)* 4

Periodontal disease *(8)* 3

Phentermine *(9)* 7

Phosphorus *(4)* 6; *(6)* 10; *(21)* 14

Potassium
- content in foods *(11)* 27-28t
- content in salt substitutes *(11)* 9t
- foods high in *(19)* 13t
- supplementation *(19)* 14

Precursor therapy *(24)* 6-7

Pregnancy *(Module #7)* (See also Breastfeeding)
- adolescent *(6)* 8; *(7)* 2, 7
- alcoholism *(14)* 2; *(24)* 16
- anthropometric measurements *(7)* 12-14t
- biochemical assessment *(7)* 15
- caffeine *(24)* 14
- calcium needs *(7)* 7, 9, 10
- diet history *(7)* 15-18t
- dietary guidelines (See Pregnancy: nutritional needs)
- drugs, over-the-counter *(24)* 14
- food groups *(7)* 8-9, 27-30
- iron *(7)* 5-6, 9-10
- kilocalorie requirement *(7)* 3t
- mineral requirement *(7)* 5-8, 26t
- nutritional assessment *(7)* 12-18t
- nutritional guidelines *(24)* 12-13
- nutritional needs *(7)* 8-10, 26t
- pica *(24)* 15
- problems during *(7)* 10-12, 36-39t
- protein needs *(7)* 2
- smoking *(24)* 14
- sodium intake *(7)* 8
- vegetarian *(7)* 31t; (24) 14-15
- vitamin needs *(7)* 26t

Premenstrual syndrome *(24)* 23-26

Probucol (Lorelco) *(12)* 5t

Protein
- adolescents, requirements *(6)* 8-9
- athletes, requirement *(6)* 15
- calculation *(10)* 12
- children, requirement *(5)* 2
- content in foods *(1)* 8-9t; *(11)* 21-22t, 27-28t

degredation and synthesis *(18)* 13
diabetic, requirement *(10)* 7, 8
esophageal sphincter pressure effect *(13)* 11
evaluation *(25)* 30
gastric acid secretion effect *(13)* 3
infant, requirement *(4)* 3, 4, 5-6
intake *(22)* 20
pregnant and lactating women, requirement *(7)* 2
renal patient, intake recommended *(11)* 9-10
supplementation *(22)* 16
utilization during weight loss *(18)* 13-14

Psoriasis *(26)* 6

Pyridoxine (See Vitamin B12)

Pyruvate-alanine cycle *(22)* 7

Recommended Dietary Allowances *(1)* 17-19, 36, 38t; *(17)* 25t; *(23)* 41; *(25)* 11, 35
adolescents *(6)* 3t, 8-9
children *(5)* 8, 10
elderly *(8)* 14
infant *(4)* 2-3
pregnancy *(7)* 26t

Reflux esophagitis *(Module #13)*
causes *(13)* 10
definition and characteristics *(13)* 10
dietary management *(13)* 11
hiatus hernias *(13)* 10
therapy objectives *(13)* 10

Renal calculi *(8)* 8; *(11)* 9-10

Resources, contribution to nutrition management *(17)* 11-12

Riboflavin (See Vitamin B2)

Rickets *(21)* 8-9t

Saccharine *(18)* 27

Salt substitutes *(11)* 7, 9t

Schizophrenia *(24)* 8

Serotonin *(24)* 4-6, 7

Set point theory *(20)* 3

Sex hormones, effects upon bones *(21)* 10-11

Sexual potency *(26)* 17

Sideroblastic anemia *(14)* 8

Skin-fold thickness *(2)* 9-10, 34, 35t-36, 37t; *(4)* 11

Smoking *(19)* 17-18; *(24)* 14

Snacks
children *(5)* 3-4
diabetics *(10)* 8, 10

Social history *(17)* 2, 14-15

Sodium
additives *(11)* 5t
content in drugs *(3)* 14-15; *(11)* 22
content in foods *(1)* 8-10; *(11)* 4, 20-21, 23, 27-28; *(19)* 15t
content in soft drinks *(11)* 6
conversion factors *(11)* 5t
daily requirement *(11)* 4
determining typical intake *(11)* 6, 20-21
hypertension *(19)* 14-15
major sources *(11)* 4
pregnancy needs *(7)* 8
restriction *(11)* 6-9, 10

Somogyi effect *(10)* 10

Sorbitol *(18)* 26-27

Spastic colon (See Irritable bowel syndrome)

Stature decline *(8)* 6

Steatorrhea *(14)* 6

Sugar *(18)* 23, 26

Sugar substitutes *(10)* 30

Superoxide dismutase (SOD) *(23)* 32

Surgery *(13)* 7

Tardive dyskinesia *(24)* 8

Teeth
decay *(21)* 3
fluoridated water *(21)* 17
formation *(21)* 3
"nursing bottle" syndrome *(21)* 3
vitamin deficiency *(21)* 3

Testosterone *(14)* 7

Theobromine *(13)* 23-24t

Thiamin (See Vitamin B1)

Thyroid hormone, effects upon bones *(21)* 10

Toddler (See also Children)
eating patterns *(5)* 3
nutrient needs *(5)* 2-3
protein requirement *(4)* 2
supplementation *(4)* 3

Triglycerides *(12)* 9-10; *(18)* 5-7

Tryptophan *(24)* 4-6, 7, 8

Tube feedings *(Module #15)*
administration methods *(15)* 6, 8
commercial products *(15)* 5-6, 7t
constipation *(15)* 9
diarrhea *(15)* 9
home preparation *(15)* 5
patient work-up *(15)* 6

problems associated with *(15)* 8-9
regimen *(15)* 6

Tyrosine *(24)* 6, 7

Ulcerative colitis *(13)* 18-19

Urinary calculi *(21)* 16

Varicose veins *(26)* 17

Vascular disease *(10)* 4

Vegetarian *(6)* 9; *(7)* 31t; *(17)* 6t

Virchow's hypothesis *(19)* 8

Visualization theory *(20)* 3

Vitamin *(Module #23)* (See also individual vitamin listings)
adolescents, recommended intake *(6)* 13
alcoholism *(14)* 12
B-complex *(23)* 13-20
deficiency *(8)* 3, 7; *(23)* 3, 43
definition of *(23)* 2
diabetic, requirement *(10)* 8
fat-soluble *(1)* 36; *(23)* 3, 4-11
infant, recommended intake *(4)* 2-3
malabsorption of *(3)* 19-20t
megadoses, as treatment *(23)* 30-31
pregnancy, requirement during *(7)* 5
sources *(1)* 40t; *(7)* 6
supplements *(1)* 36, 39t; *(5)* 30-31t; *(14)* 12
toxicity *(22)* 22-23
water-soluble *(1)* 13-14, 36; *(3)* 22; *(23)* 3, 11-12

Vitamin A *(23)* 4-7
acne *(1)* 20; *(6)* 13; *(26)* 2
deficiency *(1)* 16
disease prevention *(19)* 23-24
malabsorption syndrome, dosage *(3)* 20t
migraine headache *(26)* 15
Recommended Dietary Allowances *(1)* 36; *(7)* 6
sources *(1)* 13, 14; *(7)* 6t; *(10)* 34, 35
toxicity *(1)* 18; *(3)* 21-22; *(5)* 16; *(6)* 13

Vitamin B1 (Thiamin) *(23)* 13-14
deficiency *(8)* 9; *(14)* 8
sources *(1)* 12

Vitamin B2 (Riboflavin) *(1)* 20t; *(7)* 6t; *(23)* 14-15

Vitamin B6 (Pyridoxine) *(23)* 16-17
adolescents *(6)* 13
alcohol *(14)* 8
premenstrual syndrome, treatment *(24)* 24-25
sources *(10)* 34

Vitamin B12 (Cobalamine) *(23)* 19-20
deficiency *(5)* 16; *(14)* 8
malabsorption syndrome, dosage *(3)* 20t
sources *(7)* 6t; *(10)* 38

Vitamin C (Ascorbic acid) *(23)* 11-12
cold, treatment *(1)* 20t
deficiency *(1)* 16
disease prevention *(19)* 22-23
Recommended Dietary Allowances *(1)* 36; *(7)* 6t
sources *(1)* 13; *(10)* 34, 35
toxicity *(1)* 18; *(3)* 22; *(5)* 16
treatment of cold *(1)* 20t

Vitamin D *(23)* 7-8
bones, effects upon *(21)* 6-8
malabsorption syndrome, dosage *(3)* 20t
Recommended Dietary Allowances *(1)* 36; *(7)* 6t
sources *(1)* 5-7, 14
supplementation *(7)* 10; *(21)* 16
toxicity *(1)* 18; *(3)* 22

Vitamin E *(23)* 8-10
disease prevention *(19)* 24
function *(1)* 20t
malabsorption syndrome, dosage *(3)* 20t
Recommended Dietary Allowances *(1)* 36; *(7)* 6t
sources *(7)* 6
toxicity *(5)* 16

Vitamin K *(3)* 22; *(23)* 10-11

Weaning *(4)* 5

Weight
guidelines *(8)* 20t; *(10)* 5-6t, 13; *(11)* 17t; *(25)* 2-3, 25-26
reduction aids, evaluation *(20)* 10t
reduction diets *(9)* 9-10, 13t
reduction support groups *(9)* 15, 16t

Wernicke's encephalopathy *(14)* 8, 9t

Wernicke-Korsakoff syndrome *(14)* 8

Wheat, foods containing *(26)* 28t

Wrestling (See Athlete)

Zinc *(6)* 12; *(23)* 28-29; *(26)* 3

Some Abbreviations Used in the Nutrition in Primary Care Series

ATP	adenosine triphosphate
c	cup
cc	cubic centimeter
CNS	central nervous system
FDA	Food and Drug Administration
gm	gram
IBW	ideal body weight
IU	International Units
kcal	kilocalorie
kg	kilogram
lb	pound
lg	large
MCV	mean corpuscular volume
MDR	minimum daily requirement
med	medium
µg	microgram
mEq	milliequivalent
mg	milligram
MJ	megajoule
ml	milliliter
oz	ounce
RDA	Recommended Dietary Allowances
RE	retinol equivalents
sl	slice
sm	small
Tbsp	Tablespoon
TPN	total parenteral nutrition
tsp	teaspoon
USDA	United States Department of Agriculture